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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,425	06/24/2003	Jerry Ditter	PALL.107C1	3308
20995 7590 06/15/2007 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER CHEVALIER, ALICIA ANN	
			ART UNIT 1772	PAPER NUMBER
			NOTIFICATION DATE 06/15/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/603,425	Applicant(s) DITTER ET AL.	
	Examiner Alicia Chevalier	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-11,13-19 and 21-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11, 13-19 and 21-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

RESPONSE TO AMENDMENT

Request for Continued Examination

1. The Request for Continued Examination (RCE) under 37 CFR 1.53 (d) filed on April 2, 2007 is acceptable and a RCE has been established. An action on the RCE follows.
2. Claims 1, 3-11, 13-19 and 21-33 are pending in the application, claims 2, 12 and 20 have been cancelled.
3. Amendments to the claims, filed on April 2, 2007, have been entered in the above-identified application.

WITHDRAWN REJECTIONS

4. The 35 U.S.C. §103 rejections made of record in the office action mailed January 2, 2007, pages 2-5, paragraphs #5 and #6 has been withdrawn due to Applicant's amendment in the response filed April 2, 2007.

REJECTIONS

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

6. Claims 1, 3, 4, 13-19 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karbachsch et al. (U.S. Patent No. 4,983,288) in view of Miller (U.S. Patent No. 4,906,371).

Regarding Applicant's claims 1 and 21, Karbachsch discloses a filter laminate (*title*) comprising any arrangement of plurality of discrete layers (*figures 4 and 5*) comprising a first membrane layer (*prefiltering membrane, col. 5, line 8*) comprising a first membrane and at least a second membrane comprising a second membrane and a bond between each of the adjacent layers (*final filtering membrane, col. 5, line 9*). The filter laminate is deemed to have a flow rate therethrough such that the filter is configured for separation by filtration (*abstract*).

The first membrane is a microporous or ultraporous asymmetric membrane and the second membrane is porous (*col. 2, lines 44-48*).

Karbachsch fails to disclose that the laminate comprises a hot melt adhesive bonding layer.

Miller discloses a filter element having an asymmetric microporous membrane (*title, col. 9, lines 46-62*). Miller further discloses bonding the membrane to additional layers with a solventless hot melt adhesive, such that it does not have a low melt temperature that it will not adhesively function at typical heat sterilization and autoclave temperatures (*col. 12, lines 40-51*).

Karbachsch and Miller are analogous because discloses asymmetric microporous membranes in filters.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a hot melt adhesive as taught by Miller to Karbachsch in order to bond the layers together

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in order to provide a bonding material that will function under heat sterilization and autoclave temperatures.

Regarding Applicant's claim 3, Karbachsch fails to disclose that the second membrane is asymmetric. However it would have been obvious to one of ordinary skill in the art to use two asymmetric membranes, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. Furthermore, one of ordinary skill in the art would be motivated to have two asymmetric prefilters in order to provide better filtration and separation.

Regarding Applicant's claim 4, Karbachsch first asymmetric membrane is deemed to be highly asymmetric (*figures 2-5*).

Regarding Applicant's claims 5-6 and 10-11, Karbachsch discloses that the pores of the second surface have an average diameter at least about 5 or 10 times greater than an average diameter of the pores of the first surface (*col. 3, lines 36-47 and col. 5, lines 62-64*). The average diameter of the pores of the first surface is from about 0.01 μm to about 10.0 μm or less than about 0.01 μm (*col. 3, lines 36-47 and col. 5, lines 62-64*).

Regarding Applicant's claims 7-8, Karbachsch discloses that the support structure comprises a reticular network of flow channels connecting the pores of the first surface with the pores of the second surface (*figures 2 and 3*). The flow channels substantially increase gradually in diameter between the first surface and the second surface (*figures 2 and 3*).

Regarding Applicant's claim 9, Karbachsch does not explicitly disclose that the first membrane further comprises an isotropic region. However, Miller discloses that the term "isotropic" means that the membrane has a uniform pore structure throughout the membrane.

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From figures 2 and 3 of Karbachsch it can be seen that the pore structures are uniform throughout the membrane.

Regarding Applicant's claims 13 and 19, Karbachsch discloses the filter laminate further comprising a third membrane layer (*figures 3 and 4*).

Regarding Applicant's claims 14 and 26, as discussed above Karbachsch does not disclose a hot melt adhesive bonding layer. However, Miller discloses these limitations as discussed above.

Regarding Applicant's claim 15, Karbachsch discloses that the first membrane comprises a polymer selected from the group consisting of polyvinylidene fluoride, polyarylsulfone, polyethersulfone, polyamides and cellulosic derivative (*col.3, lines 53-57*).

Regarding Applicant's claims 16-18, Karbachsch discloses that the filter further comprises a layer comprising a material selected from the group consisting or polyester, polypropylene, polyolefin, polyethylene, nylon, paper, cellulose, glass fiber, acrylic, and Mylar and/or selected from the group consisting of nonwoven fibrous material, woven fibrous material, web material, sheet material, calendared material, wet laid material, dry laid material, and extruded material (*col.4, lines 20-25*).

Regarding Applicant's claims 22 and 27, the limitation "formed from .." is a method limitation and does not determine the patentability of the product, unless the process produces unexpected results. The method of forming the product is not germane to the issue of patentability of the product itself, unless Applicant presents evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art.

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MPEP 2113. Furthermore, the shape of the hot melt adhesive before use is not important since after it is melted the original form will not be in the final product.

Regarding Applicant's claims 23-25, Karbachsch discloses that the filter laminate is permeable to water (*col. 1, lines 24-33*).

Regarding Applicant's claim 28, the bubble point of the filter laminate is deemed to be greater than a bubble point of the first membrane layer and the second membrane layer in a skin-to-skin configuration without bonding.

Regarding Applicant's claims 29 and 30, Karbachsch discloses that the first membrane layer and the second membrane layer have different skin pore sizes (*figures 2 and 3*).

Regarding Applicant's claims 31-33, the filter laminate is deemed to have a tighter mean flow pore size than the first membrane and second membrane and third membrane layer.

ANSWERS TO APPLICANT'S ARGUMENTS

7. Applicant's arguments in the response filed April 2, 2007 regarding the previous rejections of record have been considered but are moot since the rejections have been withdrawn.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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6/11/07



ALICIA CHEVALIER
PRIMARY EXAMINER